

# PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference PM02010	<b>FOR FURTHER ACTION</b> see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. PCT/ EP 03/ 08212	International filing date (day/month/year) 30/06/2003	(Earliest) Priority Date (day/month/year) 05/07/2002
Applicant  BAYER CROPSCIENCE S.A.		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 7 sheets.



It is also accompanied by a copy of each prior art document cited in this report.

### 1. Basis of the report

- a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.



the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

- b. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international search was carried out on the basis of the sequence listing :



contained in the international application in written form.



filed together with the international application in computer readable form.



furnished subsequently to this Authority in written form.



furnished subsequently to this Authority in computer readable form.



the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.



the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2. ☐

**Certain claims were found unsearchable** (See Box I).

3. ☒

**Unity of invention is lacking** (see Box II).

4. With regard to the **title**,



the text is approved as submitted by the applicant.



the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,



the text is approved as submitted by the applicant.



the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the **drawings** to be published with the abstract is Figure No.



as suggested by the applicant.



because the applicant failed to suggest a figure.



because this figure better characterizes the invention.



None of the figures.

# INTERNATIONAL SEARCH REPORT

International application No.

PCT/EP 03/08212

Box III TEXT OF THE ABSTRACT (Continuation of item 5 of the first sheet)

## INTERNATIONAL SEARCH REPORT

International Application No.

PCT/EP 03/08212

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C07C319/18 C07C319/20 C07C323/60 C07D231/44

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07C C07D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, BEILSTEIN Data, WPI Data, PAJ, CHEM ABS Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	A. TURPIN, ET AL.: "Préparation et étude en effet Faraday de quelques esters et du dinitrile de l'acide acétylène-dicarboxylique ainsi que leurs composés d'addition avec les thiols" COMPTES RENDUS HEBDOMADAIRES DES SEANCES DE L'ACADEMIE DES SCIENCES, vol. 256, 1963, pages 1712-1714, XP002260946 GAUTHIER-VILLARS, MONTREUIL, FR page 1712, paragraph 4 ----- -/--	1

☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

## \* Special categories of cited documents:

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

- \*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*&\* document member of the same patent family

Date of the actual completion of the international search

17 November 2003

Date of mailing of the international search report

03/12/2003

Name and mailing address of the ISA

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Authorized officer

English, R

## INTERNATIONAL SEARCH REPORT

International Application No.

PCT/EP 03/08212

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	V.N. KOPRANENKOV, ET AL.: "Phthaloyanines and related compounds. XVI. Synthesis and electronic absorption spectra of amino-, alkoxy-, and alkylthio-substituted porphyrazines" JOURNAL OF GENERAL CHEMISTRY OF THE USSR, vol. 15, no. 4, pt. 1, April 1979 (1979-04), pages 962-967, XP008011376 Consultants Bureau, New York, US page 965, line 17 - line 21 -----	1
A	A.B. BEELER, ET AL.: "Synthesis of fipronil sulphide, an active metabolite, from the parent insecticide fipronil" TETRAHEDRON LETTERS, vol. 42, no. 32, 6 August 2001 (2001-08-06), pages 5371-5372, XP004254962 Elsevier Science Publishers, Amsterdam, NL ISSN: 0040-4039 the whole document -----	8
A	D. HAINZL, ET AL.: "Mechanisms for selective toxicity of fipronil insecticide and its sulphone metabolite and desulphonyl photoproduct" CHEMICAL RESEARCH IN TOXICOLOGY, vol. 11, no. 12, 7 November 1998 (1998-11-07), pages 1529-1535, XP002261004 AMERICAN CHEMICAL SOCIETY, WASHINGTON, DC, US scheme 2 -----	8
A	EP 0 966 445 B (AVENTIS CROPSCIENCE) 25 July 2001 (2001-07-25) cited in the application the whole document -----	8

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-6 (in part), 7, 8-17 (in part), 18

Three-step process for the preparation of  
4-amino-3-cyano-1-(2,6-dichloro-4-trifluoromethylphenyl)-4-  
trifluoromethylthiopyrazole starting from dicyanoacetylene  
as well as the intermediates  
1,2-dicyano-1-trifluoromethylthioethene and  
1-(2,6-dichloro-4-trifluoromethylphenylhydrazono)-1,2-  
dicyano-2-trifluoromethylthioethane  
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2. claims: 1-6 (in part)

Process for the preparation of 1-alkylthio-1,2-dicyanoethene  
derivatives  
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3. claims: 8-17 (in part)

Two-step process for the preparation of  
4-amino-3-cyano-1-(2,6-dichloro-4-trifluoromethylphenyl)-4-  
alkylthiopyrazole derivatives  
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# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/EP 03/08212

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☒ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

### Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP 03/08212

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
EP 0966445	B	29-12-1999	GB 2324086 A 14-10-1998
			AT 203521 T 15-08-2001
			AU 744505 B2 28-02-2002
			AU 6823298 A 22-09-1998
			BG 103751 A 31-05-2001
			BR 9807988 A 08-03-2000
			DE 69801214 D1 30-08-2001
			DE 69801214 T2 08-11-2001
			DK 966445 T3 24-09-2001
			EA 1777 B1 27-08-2001
			EP 0966445 A1 29-12-1999
			GR 3036282 T3 31-10-2001
			HU 0002159 A2 28-10-2000
			JP 2001513792 T 04-09-2001
			NZ 337840 A 29-06-2001
			SI 966445 T1 31-10-2001
			SK 119199 A3 13-03-2000
			US 6084105 A 04-07-2000
			US 6258973 B1 10-07-2001
			CN 1421439 A 04-06-2003
			CN 1103759 B 26-03-2003
			WO 9839302 A1 11-09-1998
			ES 2158676 T3 01-09-2001
			PL 335443 A1 25-04-2000
			PT 966445 T 30-11-2001
			TR 9902141 T2 21-04-2000
			ZA 9801611 A 25-08-1999